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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/537,450 03/27/00 LELE

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IM52/0529

EXAMINER

ZALUKAEVA, T	
ART UNIT	PAPER NUMBER

1713
DATE MAILED:

05/29/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/537,450

Applicant(s)

LELE ET AL.

Examiner

Tanya Zalukaeva

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 March 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 8, 9, 12, 13, 15, 16, 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The recited "preferably", "more preferably", "most preferably" as per claims 9, 12, 13, 15, 16, 17 constitutes an indefinite subject matter, because it links the broader range of value with the narrow range of value, which renders the claim to be indefinite. It is not clear, which range controls the actual metes and bounds of the claimed subject matter.

The language of claims 8, is indefinite because it uses an improper form of a Markush Group for component (1). When groups recited in a claim are so related as to constitute a proper Markush group, they should be recited in the conventional manner or in the alternative, for example, "... selected from the group, consisting of A, B, C and D".

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claim 15 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for polymerization of monomer(s) by conventional methods, does not reasonably provide enablement for "polymerization of polymer gel".

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The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims. If the polymer gel exists, it cannot be further polymerized. In the instant case the polymer gel is obtained, after the polymerization is carried out and polymer in a form of powder swells in alcohol.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-11, 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Wesley et al (U.S. 5,641,890).

Wesley discloses a process for making a polymer and gelled organic liquids by using in combination with an amine neutralized anionic polymer and an auxiliary rheological additive. The auxiliary rheological additive is a substance which increases the linearity of the anionic polymer and its thixotropic properties. Suitable auxiliary rheological additives are amphoteric oxides and/or fatty acids and/or fatty acid salts. The organic liquids that can be effectively gelled are organic solvents which include fuels such as hydrocarbons and alcohols. (see abstract).

The gelled solvents of Wesley contain 0.1 to 10% of an anionic polymer and 0.1 to 10 % of an auxiliary rheological additive (col. 2, lines 47-50). The said rheological additive

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is a transition metal salt of long chain fatty acids, the metals are listed in col.12, lines 40-50, which are preferably used in the range of 0.02 to 2%. (for example, 200 ppm is 0.2%) This covers the limitations of the transitional metals present in a polymerization and their amounts, as per instant claims 1,3, 4 and 5.

Amine neutralized anionic polymers contemplated within the scope of Wesley's disclosure comprise polyacrylic acid polymers such as the CARBOPOLS, sulfonated polymers containing a sulfonate functionality, as well as copolymers containing a maleic anhydride functionality, such as a crosslinked GANTREZ.

Exemplary of the cross-linked polyacrylic acid-type agents are Carbopol 941, Carbopol 676, Carbopol 940 and Carbopol 934 (col. 5, lines 49-60, col.6, lines 45).

Polyacrylic type monomers in combination with other comonomers, such as styrene, maleic acid, 2-hydroxyethylacrylate can also be used (col. 6, lines 33-36).

These agents are used by Wesley in their lightly cross-linked form wherein the cross-linking may be accomplished preferably, by the incorporation into the

monomer mixture to be polymerized of known chemical cross-linking monomeric agents, typically polyunsaturated (e.g. diethylenically unsaturated) monomers, such as, for example, divinylbenzene, divinylether of diethylene glycol, N, N'-methylene-bisacrylamide, and the like. Typically, amounts of cross-linking agent to be incorporated in the final polymer may range from 0.01 to 1.5 (col. 6, lines 53-65).

In regard to the steps and mode of the process for the preparation of a composition, Wesley provides the mode wherein the crosslinked CARBOPOL copolymer, which is obtained by free radical polymerization of a corresponding

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monomer(s) with crosslinking agent in a solvent is mixed with an auxillary additive and then added to an alcohol fuel to ensure the gelation.

Wesley does not specifically disclose the step of washing and drying a polymer before the swelling in an alcohol takes place. However, the polymers, such as CARBOPOLS of Wesley are commercial products, and while prepared are washed with the solvent, dried by conventional methods and are available in a powder form, therefore, by incorporating by reference the polymers, as discussed above, Wesley inherently has the recited steps.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. Claims 12-15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wesley et al (U.S.5,641,890)..

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While disclosing the same process of making polymeric compositions gelled in an alcohol, in the presence of an auxillary additive, which is either amphoteric metal oxide or a transition metal salt of a fatty acid Wesley is silent about the amount of monomer(s) in a polymerization mixture, the initiators used, the presence of accelerator in a polymerization mixture, and the concentration of a monomer in a monomer solution.

However, differences in concentration, or temperature will not support the patentability of a subject matter encompassed by the prior art unless there is an evidence indicating such concentration or temperature is critical.

Furthermore, wherein the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine optimization, In re Aller, 220 F.2d 454,456, 105 USPQ 233, 235 (CCPA 1955).

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Karl (U.S. 4540510) discloses a synergistic thickener mixtures of AMPS, Sun et al (U.S. 6124391) discloses superabsorbent polymers capable of gelling; Monick (U.S. 4,261,700) discloses a pressurized fuel gel composition comprising a monohydric alcohol and a polymeric gelling agent. Other references cited in PTOL-892 show the general state of the art.

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11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tanya Zalukaeva whose telephone number is (703) 308-8819. The examiner can normally be reached on 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (703) 308-2450. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3599 for regular communications and (703)305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0651.

Tanya Zalukaeva
Examiner
Art Unit 1713

TZ
May 25, 2001



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